PhaseBio Provides Pemziviptadil (PB1046) Program Update

December 21, 2021

Phase 2b trial of pemziviptadil in pulmonary arterial hypertension (PAH) voluntarily ended early by the Company in order to evaluate existing program data and determine next steps forward

Company to reprioritize resources and capital towards successful commercialization of bentracimab and advancement of other pipeline programs

MALVERN, Pa. & SAN DIEGO--(BUSINESS WIRE)--Dec. 21, 2021-- PhaseBio Pharmaceuticals, Inc. (Nasdaq: PHAS), a clinical-stage biopharmaceutical company focused on the development and commercialization of novel therapies for cardiopulmonary diseases, today announced that the company is voluntarily ending its Phase 2b trial of pemziviptadil (PB1046) in PAH due to COVID-19 impacts on manufacturing, associated drug supply and the rate of enrollment in the study. The company will analyze the trial data to determine an appropriate path forward for the program, which depending on the results could include an improved product presentation and simplified product dosing in a subsequent trial. With the suspension of the Phase 2b trial, the company will reprioritize resources and capital towards pre-commercialization activities of bentracimab and the advancement of other pipeline programs, including PB6440 for resistant hypertension. The Phase 2b trial of pemziviptadil, named the VIP trial (**V**asoactive **I**ntestinal **P**eptide in adult patients with pulmonary arterial hypertension), had successfully enrolled more than 50% of the study's target population.

"With the continued impact of the COVID-19 pandemic on this Phase 2b clinical trial, we believe a full evaluation of the program makes sense at this time and that any positive data generated could help galvanize support for the future development of pemziviptadil," said Jonathan Mow, Chief Executive Officer, PhaseBio Pharmaceuticals. "Upon completion of the final analyses of the pemziviptadil trial, we will evaluate the potential for a future trial of pemziviptadil. We continue to believe pemziviptadil is a potentially valuable asset for the treatment of pulmonary arterial hypertension and other diseases."

About Pemziviptadil (PB1046)

Pemziviptadil, a novel, subcutaneously injected VIP analogue, is a recombinant fusion protein composed of VIP and PhaseBio's proprietary elastin-like polypeptide (ELP) biopolymer. Based on the pharmacokinetic profile of pemziviptadil observed in PhaseBio clinical trials, the fusion of VIP to ELP results in both a prolonged absorption profile and a longer circulating half-life, enabling once-weekly dosing.

Pemziviptadil was in Phase 2 development for the treatment of PAH. To date, pemziviptadil has been administered to more than 100 patients with cardiovascular or cardiopulmonary diseases in five clinical trials conducted in the United States. The FDA has granted pemziviptadil orphan drug designation for the treatment of pulmonary arterial hypertension (WHO Group 1 Pulmonary Hypertension) and cardiomyopathy associated with Duchenne Muscular Dystrophy.

About PhaseBio

PhaseBio Pharmaceuticals, Inc. is a clinical-stage biopharmaceutical company focused on the development and commercialization of novel therapies for cardiovascular and cardiopulmonary diseases. PhaseBio's pipeline includes: bentracimab (PB2452), a novel reversal agent for the antiplatelet therapy ticagrelor; pemziviptadil (PB1046), a once-weekly VIP receptor agonist for the treatment of pulmonary arterial hypertension; and PB6440, an oral agent for the treatment of resistant hypertension. PhaseBio's proprietary elastin-like polypeptide technology platform enables the development of therapies with potential for less-frequent dosing and improved pharmacokinetics, including pemziviptadil, and drives both internal and partnership drug-development opportunities.

PhaseBio is located in Malvern, PA, and San Diego, CA. For more information, please visit www.phasebio.com, and follow us on Twitter @PhaseBio and LinkedIn.

Forward-Looking Statements

This press release contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. Words such as "anticipates," "believes," "expects," "intends," "potential," "projects," "target," "will," "would" and "future" or similar expressions are intended to identify forward-looking statements.

Forward-looking statements include statements concerning or implying the conduct or timing of our clinical trials and our research, development and regulatory plans for our product candidates, the timing of availability or disclosure of data from those clinical trials and the timing of planned regulatory submissions, the potential for these product candidates to receive regulatory approval from the FDA or equivalent foreign regulatory agencies, and whether, if approved, these product candidates will be successfully distributed, marketed and commercialized. Forward-looking statements are based on management's current expectations and are subject to various risks and uncertainties that could cause actual results to differ materially and adversely from those expressed or implied by such forward-looking statements. Accordingly, these forward-looking statements do not constitute guarantees of future performance, and you are cautioned not to place undue reliance on these forward-looking statements.

Risks regarding our business are described in detail in our Securities and Exchange Commission filings, including in our Quarterly Report on Form 10-Q for the quarter ended September 30, 2021. These forward-looking statements speak only as of the date hereof, and PhaseBio Pharmaceuticals, Inc. disclaims any obligation to update these statements except as may be required by law.

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Investor Contact:
John Sharp
PhaseBio Pharmaceuticals, Inc.

Chief Financial Officer
(610) 981-6506
john.sharp@phasebio.com

Media Contact:
Will Zasadny
Canale Communications, Inc.
(619) 961-8848
will.zasadny@canalecomm.com

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